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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,766	08/19/2003	Chuan Weng	87334.5920	3006

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WASHINGTON, DC 20036-5304

EXAMINER

HARDEE, JOHN R

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/642,766

Applicant(s)

WENG, CHUAN

Examiner

John R. Hardee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-26, elected invention is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Claim Rejections - 35 USC § 102

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-26, to the extent that they read on the elected invention, remain rejected under 35 U.S.C. 102(e) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Podtchereniaev et al., US 6,502,410. See Figs. 7 and 8. Argon is a G refrigerant; R-14 is an E refrigerant; R-23 is a D refrigerant; R-236fa is a B refrigerant; and R-245fa is an A refrigerant. The examiner takes the position that the number of permutations disclosed in the figures is sufficiently small that the recited combination would be "immediately envisaged" by the person of ordinary skill in the refrigerant art. Alternatively, it would have been obvious at the time that the invention was made to make the elected composition, because the reference discloses that such a composition can be made using the recited constituents with no additional mandatory constituents. Where specific refrigerants are not disclosed, applicant has admitted on the record that it would be obvious to substitute any of the other refrigerants within the group disclosed by applicant. Accordingly, disclosure in the prior art of any of the refrigerants in any such group renders the others obvious.
3. Claims 1-26, to the extent that they read on the elected invention, are rejected under 35 U.S.C. 102(e) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Flynn, US 6,560,981. See Table 1, cols. 7-8. Argon is a

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G refrigerant; R-14 is an E refrigerant; R-23 is a D refrigerant, as is ethane; R-236fa is a B refrigerant; and R-245fa is an A refrigerant, as are R-236ea and R-245ca. The examiner takes the position that the number of permutations disclosed in the table is sufficiently small that the recited combination would be "immediately envisaged" by the person of ordinary skill in the refrigerant art. Alternatively, it would have been obvious at the time that the invention was made to make the elected composition, because the reference discloses that such a composition can be made using the recited constituents with no additional mandatory constituents.

Response to Arguments

4. Applicant's arguments filed April 29, 2005 have been fully considered but they are not persuasive. Applicant argues that the claims are of "consisting" scope, and that the references do not disclose compositions of "consisting" scope. This is not persuasive because applicant's method claims are not of "consisting" scope. They are of "comprising" scope and allow for an additional step of adding any other material. Nonetheless, the references disclose compositions consisting of or obvious over the recited constituents. Regarding the composition claims, Figs. 7 and 8 of the '410 reference fairly disclose compositions which are of "consisting" scope, as no other materials are present besides materials which read on applicant's claims. Likewise, the cited table in the '981 reference discloses compositions which do not appear to contain any constituents not recited by applicant. Applicant argues, for example, that the Flynn reference does not disclose a composition containing exactly one of R116, R170,

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R508a, R508b and R1150. While this is correct, it is not persuasive because the reference does disclose a composition containing another D refrigerant in “consisting” scope. As applicant has admitted that substituting one D refrigerant for another is obvious, the claim is obvious. Similar responses apply to applicant’s other arguments.

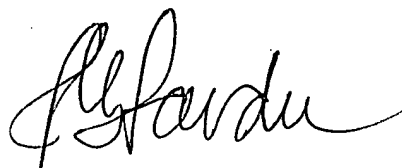
5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to the examiner, Dr. John R. Hardee, whose telephone number is (571) 272-1318. The examiner can normally be reached on Monday through Friday from 8:00 until 4:30. In the event that the examiner is not available, his supervisor, Dr. Yogendra Gupta, may be reached at (571) 272-1316.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "J. Hardee", written in a cursive style.

John R. Hardee
Primary Examiner
June 13, 2005